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ORIGINAL ARTICLE

Differential impacts of COVID-19 and associated responses on the health, social well-being and food security of users of supportive social and health programs during the COVID-19 pandemic: A qualitative study

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Abstract

The effects of the coronavirus disease-2019 (COVID-19) pandemic on the lives of underserved populations are underexplored. This study aimed to identify the impacts of the COVID-19 pandemic and associated public health responses on the health and social well-being, and food security of users of Housing First (HF) services in Toronto (Canada) during the first wave of the COVID-19 pandemic. This qualitative descriptive study was conducted from July to October 2020 in a subsample of 20 adults with a history of homelessness and serious mental disorders who were receiving HF services in Toronto. A semi-structured interview guide was used to collect narrative data regarding health and social well-being, food security and access to health, social and preventive services. A thematic analysis framework guided analyses and interpretation of the data. The COVID-19 pandemic and response measures had a variable impact on the health, social well-being and food security of participants. Around 40% of participants were minimally impacted by the COVID-19 pandemic. Conversely, among the remaining participants (impacted group), some experienced onset of new mental health problems (anxiety, stress, paranoia) or exacerbation of pre-existing mental disorders (depression, post-traumatic stress disorder and obsessive-compulsive disorder). They also struggled with isolation and loneliness and had limited leisure activities and access to food goods. The pandemic also contributed to disparities in accessing and receiving healthcare services and treatment continuity for non-COVID-19

health issues for the negatively impacted participants. Overall, most participants were able to adhere to COVID-19 public health measures and get reliable information on COVID-19 preventive measures facilitated by having access to the phone, internet and media devices and services. In conclusion, the COVID-19 pandemic and associated response measures impacted the health, social well-being, leisure and food security of people with experiences of homelessness and mental disorders who use supportive social and housing services in diverse ways.

KEYWORDS
COVID-19 pandemic, food security, health, homelessness, response measures, social support

1 | INTRODUCTION

People experiencing homelessness are among the most socio-economically excluded populations that can be affected by the coronavirus disease-2019 (COVID-19) pandemic (Perri et al., 2020). People experiencing homelessness often transition to independent housing through supportive housing programs; however, they continue to face complex and intersecting unmet needs and poverty (Stergiopoulos et al., 2019). In Canada, the number of people experiencing homelessness in a year and on a given night is approximately 235,000 and 35,000, respectively (Gaetz et al., 2016). However, these figures are expected to increase over the next five years due to the economic effects of the COVID-19 pandemic (Falvo, 2020). In Toronto (the setting of the present study), there were 7347 People experiencing homelessness over the first 3 months of 2021 (City of Toronto, 2021). Despite Canada having a universal and free health care system, many experience barriers and unequal access to treatment for mental and physical health problems (City of Toronto, 2021), which may have increased further due to the pandemic.

Populations with multiple and intersecting economic, health and social unmet needs and those facing several structural inequities experience the most harmful impacts of unexpected large-scale public health and social challenges, such as the COVID-19 pandemic (Finch & Hernández Finch, 2020; Khazanchi et al., 2020; Millett et al., 2020). The pandemic caused by the SARS-CoV-2 virus has led to millions of deaths (Centers for Disease Control and Prevention, 2021), global economic recession, worldwide travel restrictions, national lockdowns and widening inequities and disparities (Bambra et al., 2020; Bottan et al., 2020; Perry et al., 2021). In Canada, strict preventative measures were imposed beginning in March 2020 to stop the spread of COVID-19, including social distancing, enhanced sanitation practices, quarantines, lockdowns and curfews (Polisena et al., 2021). Whilst such measures are preventive and protective for the general population, they have profound implications for socio-economically excluded, mentally ill people, and ethno-racial and cultural minorities, increasing inequities and negatively impacting their health and overall well-being (Chung et al., 2020; Jakovljevic et al., 2020; Tian et al., 2020).

People with experience of chronic homelessness or residential instability have poorer physical and mental health and a higher prevalence of mental disorders (e.g. post-traumatic stress disorder, psychosis, depression) compared to the general population (Fazel et al., 2008, 2014; Hwang, 2001; Mejia-Lancheros et al., 2020). They are also at higher risk of experiencing worse COVID-19 infection outcomes and higher mortality rates than the general population (Culhane et al., 2020; Richard et al., 2021). Additionally, facing material and economic deprivation, they have competing interests between basic needs (e.g. housing and food) and access to personal protective equipment (PEE) and/or sanitation products (Iwundu et al., 2021; Lewer et al., 2020). Due to pandemic-related closures, physical distancing and other containment strategies, single

What is known about this topic

- Socio-economically and underserved populations face multidimensional and complex social and health needs.
- Even after becoming stably housed, people with a history of chronic homelessness and serious mental diseases continue to face structural barriers to access social and health support.
- Socio-economically and underserved populations are at most risk of suffering the negative impacts of public health emergencies if they are not appropriately supported.

What this paper adds

- The COVID-19 pandemic had a variable impact on the health and social well-being, and food security of users of Housing First-based supportive social and health programs.
- During the COVID-19 pandemic, Housing First-based supportive social and health programs users had variable access to healthcare services.
- Access to reliable preventive information through the internet and media plays a vital role in reducing exposure and spread of COVID-19 among people utilising Housing First-based supportive social and health programs.

individuals with mental disorders and a history of homelessness struggle with social isolation and loneliness (Bertram et al., 2021).

Pre-existing complex health conditions coupled with the lack of timely access to health and social support services during the pandemic, contribute to worsening the mental health problems, including alcohol and substance use of undeserved, mentally ill and socio-economically excluded people (Martinelli & Ruggeri, 2020; Tsai & Wilson, 2020; Tucker et al., 2020; Volkow, 2020). Some studies found that living in inadequate or unsafe housing during the pandemic was associated with greater levels of depression, anxiety and stress symptoms (Fiorillo et al., 2020; Gillard et al., 2021; Jakovljevic et al., 2020). Further, the current emphasis on virtual health services presents concrete barriers for some socio-economically excluded populations, widening existing health inequities (Beaunoyer & Dup, 2020; Gillard et al., 2021).

Additionally, the COVID-19 pandemic has negatively impacted the social services and supports available to underserved people and the response capacity of agencies that provide these services (Babando et al., 2021; Ha et al., 2021). Significant reductions in response capacity, reallocation of resources and staff turnover have hindered the operations of social serving organisations during the COVID-19 pandemic (Babando et al., 2021; Buchnea & McKitterick, 2020). The shuttering of businesses has also decreased financial and material donations that support socio-economically excluded people (Ontario Nonprofit Network, 2020). There is still limited evidence of the impact of the COVID-19 pandemic and the implemented public health and social measures on the health and socioeconomic well-being of underserved population groups. The effects on their access to and navigation across social support services have also been less documented.

The present qualitative study aimed to characterise the experiences of adults with a history of homelessness and serious mental disorders who received Housing First support services during the first wave of the COVID-19 pandemic in Toronto, Canada. We explored the impact of the COVID-19 pandemic and associated public health measures on this population's health and social well-being, and food security. We also explored access to COVID-19 preventive measures, including access to sanitation, personal protective equipment (PPE) and reliable preventive information.

2 | METHODS

2.1 | Study design, setting and population

This secondary study was embedded within the Toronto At Home/Chez Soi: Qualitative follow-up study (TORONTO AH/CS-QUALI STUDY) implemented in the first half of 2020 in Toronto, Canada. The TORONTO AH/CS-QUALI STUDY aims to identify factors, life experiences, structural challenges and unmet needs that act as barriers towards the achievement of sustainable long-term improvements on various non-housing outcomes (e.g. quality of life, community functioning, substance use and mental health problems) among users of HF programs. Initially, the TORONTO AH/CS-QUALI STUDY enrolled a purposive and representative sample (based on age, gender, HF treatment received and having children under 18 years of age) of 28 participants who received HF services either with Assertive Community Treatment (ACT) or Intensive Case Management (ICM) plus rent supplements ($N = 239$) during 2009 to 2017 through the Canadian At Home/Chez Soi (AH/CS) randomised controlled trial at the Toronto site (Hwang et al., 2012; Stergiopoulos et al., 2019) who gave consent ($n = 109$) to be contacted for further follow-up studies at their final AH/CS interview (Table 1).

The targeted sample was initially contacted and invited to participate in the study through their HF agency case managers using the study's information latter, containing the rationale, goals, objectives, methodology, benefits and potential harms, principal investigators' information and contact details and the ethical approvals of the study. Participants who initially expressed their willingness to take part in the study were contacted by the research team' Peer Research Assistant (PRA), who further explained the study, informed consent and interview process, and confirmed their willingness and availability to participate in the study. Of the initially targeted sample ($n = 28$), we were able to recruit 20 (71%) participants (10 women, including 1 transgender woman and 10 men) (Table 1) between July and October 2020. Unfortunately, eight additional potential participants who were contacted were unable to participate in the study due to lack of availability, inability to do online or phone interviews, physical or cognitive impairment, lack of access to a phone or computer to interview, or non-response to our study invitation. All participants were housed and had been receiving HF services for at least eight.

The implementation of the TORONTO AH/CS-QUALI STUDY coincided with the start of the COVID-19 pandemic; therefore, we decided to explore and build evidence on the impacts of this public health emergency and associated response measures on the health, social and economic well-being of HF program users. This population may have been significantly affected by the disruptions of the COVID-19 pandemic due to their complex mental and physical health needs and precarious socio-economic welfare.

2.2 | Data collection

We used a single semi-structured interview guide to explore domains of interest. (Supplementary file, Table S1). This guide was flexible, and the need to explore further the studied topics was evaluated in each interview. Table S2 of the Supplementary file S1 shows a sample of the different questions used to facilitate a friendly and natural discursive process. Interviewers also had the option to take notes during the interview process to inform further exploratory questions or response saturation. All interviews were conducted from July 2020 to October 2020 on the Zoom videoconferencing platform (Zoom for Healthcare, n.d.) approved by the study's sponsor for conducting virtual research interviews. Two research team members facilitated all interviews: an experienced Peer Research

TABLE 1 Target and enrolled sample of the TORONTO AH/CS-QUALI STUDY

Number of participants who consented[a] and received HF intervention ($n = 109$)	Toronto AH/CS participants sample							
	Targeted sample							
	[HF + ACT] ($n = 39$)				[HF + ICM] ($n = 70$)			
Number to be recruited according to criteria								
Age	<30 year		≥30 year		<30 year		≥30 year	
Gender	M	W	M	W	M	W	M	W
Overall sample	3	2	3	2	3	2	3	2
At least with a child under 18	1	1	1	1	1	1	1	1
Subtotal	7		7		7		7	
Target sample	**28**							
	Recruited sample							
Age	<30 year		≥30 year		<30 year		≥30 year	
Gender	M	W	M	W	M	W	M	W
Recruited sample	---	---	3	3[b]	2	2[b]	3	4
At least with a child under 18	---	---	---	---	2	--	---	1
Subtotal	0	0	3	3	4	2	3	5
Subtotal recruited sample	0		6		6		8	
Total recruited sample	**20**							

Abbreviations: ACT, Assertive Community Treatment; HF, Housing First; ICM, Intensive Case Management.

[a]Consented to be contacted for further follow-up studies at their final interview of the AH/CS study, Toronto site.

[b]Have children under 18 years of age.

Assistant (man with lived experience of mental illness, socioeconomic exclusion, and housing instability), a Principal Co-investigator (PCI, woman) or a senior co-Investigator (man). The PCI and co-investigator are PhDs with expertise in homelessness and health. All interviews were audio-recorded using an external audio-recording device and lasted approximately 25–35 min.

2.3 | Data analysis

De-identified audio-recorded interviews were transcribed to text by an external professional transcribing service. A member of the study team not involved in data collection validated the transcribed interview text against the original audio-recorded files to assure the quality and accuracy of the data. Data analysis and interpretation were guided by thematic analysis (Nowell et al., 2017) and a qualitative descriptive approach (Neergaard et al., 2009) to answer the study questions. We pursued the following steps to ensure the trustworthiness and dependability of the findings. First, transcripts were reviewed by two team members to promote familiarisation with the collected data. Second, one study team member conducted an in-depth line-by-line reading of the transcribed text to code the data and identified the first- and second-degree themes, which were organised into a preliminary coding framework (Roberts et al., 2019) in an Excel file. Third, the PCI conducted a second in-depth line-by-line reading to validate the initial coding framework and salient themes. Fourth, the coding and salient themes were reviewed and validated by three study team members who were not involved in the coding process. Fifth, the PCI and the second author analysed the final coding framework and quotations and identified the main salient results guided by thematic analysis (Nowell et al., 2017). Then, we further analysed these salient themes and subthemes to identify the existence of differential impact patterns. Participants whose salient themes and subthemes characterising having experienced no significant impacts, or those showing very marginal changes since the start of the pandemic in the three main dimension studied (health and social well-being, and food security) compared to their pre-pandemic pandemic state, were allocated into the "non-impacted group" main category, whilst those participants whose discourse' themes and subthemes showed relevant impacts, changes, or disruptions were assigned to the "impacted group". We further explored differential themes and subthemes indicating deferential impact within the "impacted group". Those participants whose discourse themes and subthemes indicate positive impacts or changes were labelled as positively impacted, whilst those denoting more negative consequences or worsening effects were labelled as negatively impacted. Throughout this process, we employed a qualitative descriptive methodology to stay fairly close to the data and describe our findings using the participant's language with low-inference interpretation (Neergaard et al., 2009) and we developed a map to represent the differential impact categories with the associated themes and common overarching connections. Finally, six study team members reviewed, validated and discussed the findings presented and discussed in this paper.

3 | FINDINGS

At the interview date, the majority ($n = 14$; 80%) of participants were ≥30 years of age, and 30% ($n = 6$) had a child under 18 years of age living with them. An equal number of participants self-identified as men ($n = 10$) and women ($n = 10$, including one transgender woman). Regarding HF services received, 60% of participants received a rent supplement and Assertive Community Treatment services, whilst the remaining (40%) received a rent supplement and Intensive Case Management services. All participants had received HF services over the last 8–11 years. All participants were stably housed in an independent residential unit ($n = 19$) or boarding house ($n = 1$) at the time of the interview. Only one participant was receiving the Canada Emergency Response Benefit (CERB; $2000 per month)—the Canadian Federal government's economic response to support people who became unemployed or lost their source of income due to the pandemic.

3.1 | The impacts of COVID-19 and associated response measures on participants' health, social well-being and food security

Although we considered age, gender, having children and type of HF intervention in selecting the participants' sample, their perspectives were common across these characteristics; therefore, we present the findings of the overall study sample.

There were two distinct and salient patterns regarding the impacts of the COVID-19 pandemic and associated public health measures implemented during the first wave (March–August 2020) of the pandemic. The first group of participants, which we labelled as a '*non-impacted group*', were those who felt that their lives over the first COVID-19 wave were not significantly affected by the pandemic and response measures. The second participants group, which we labelled the '*impacted group*', were those who experienced notably positive or negative changes in their life's dimensions, particularly in their health status, social well-being and food security. The participants' groups and associated salient themes are mapped in Figure 1 and further expanded below, including samples of the participants' spoken words.

3.1.1 | Non-impacted group—'It made no difference'

The everyday life of the *non-impacted group* (around 40% of participants) during the first wave of the pandemic continued to be nearly the same (e.g. socially isolated) as that of the pre-pandemic period, noting no or very trivial effects.

> There's no difference. I mean, I never left my house before even, when COVID wasn't even around. I hardly went anywhere. Nothing's changed. I'm doing the same thing I've been doing for the past ten years. [A0019]

These participants expressed no significant impacts on their physical or mental health, socioeconomic well-being and food security. For example, they expressed that they did not experience the new onset or worsening of their mental health symptoms. Only some of them expressed worry about the pandemic.

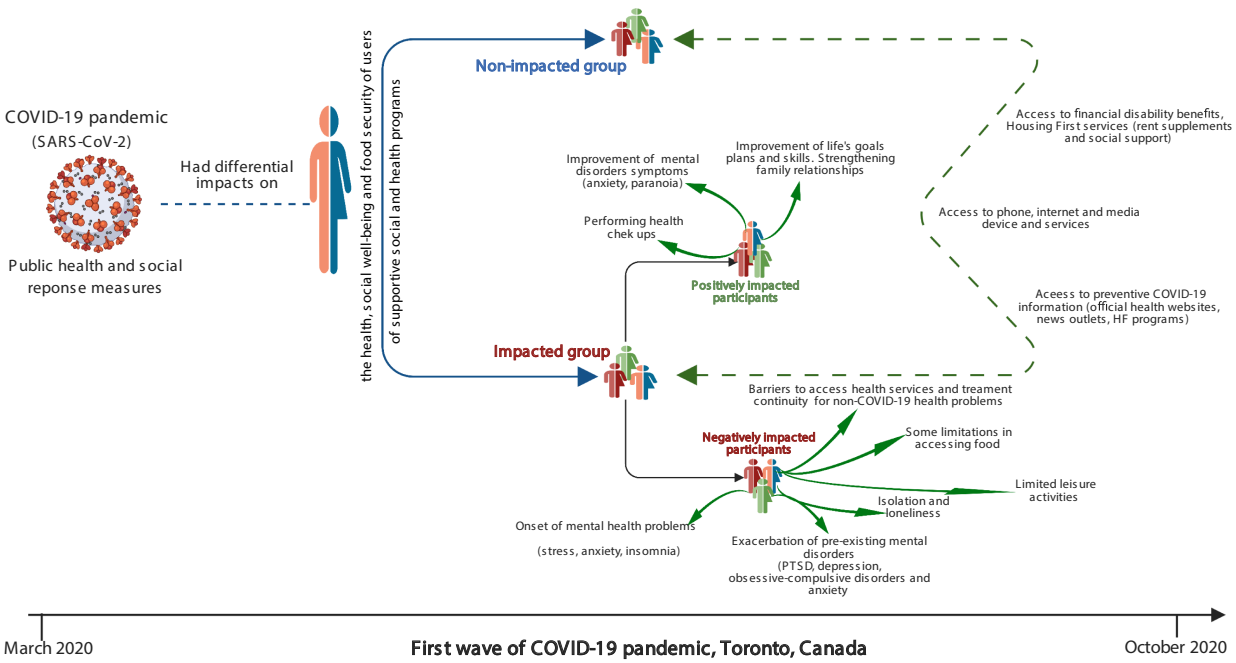

FIGURE 1 Map of the differential and shared effects of the COVID-19 pandemic on the health, social well-being and food security of people with experience of homelessness and mental disorders and users of housing first services in Toronto, Canada.

> I kind of wouldn't say it has. It really hasn't had like that much of an impact[impacted her mental health]. What is my biggest concern right now is the way things are going with this COVID, the second wave, I am terrified the amount of people that are going to be harmed. [A0007]

They also experienced relatively few barriers to accessing food or healthcare services virtually or in person if needed. Many of them continued their relationships with friends and relatives by phone or video.

> Me call and phone an [health]appointment and then so I come inside. Yeah, because so this, the psychologist tells me he wants to see me in-person. [A0014]

> So, I did video calls before COVID, but I'm doing them a lot more now. Just to have that connection with people. I have to say that the Internet definitely helps. The Zoom helps. Zoom I think has been a God save. [A0011]

Regarding economic welfare, no member of the non-affected group expressed any variation or adjustments in their financial situation. Most of them were receiving economic benefits through the Ontario Disability Support Program (ODSP) or Ontario Works (OW). Two participants were receiving a pension.

> We don't get the CERB [Canadian Emergency Response Benefit]. We get ODSP, and then they doubled the benefit of child benefit, I think back in July. It was not. [A0015]

Concerning leisure, mainly, participants of this group stayed at home and limited their recreational activities to visiting public places or taking part in a family or other social activity whilst adhering to public health measures. Some of them expressed that their lives continued to be as boring as before the pandemic.

3.1.2 | Impacted group—"It have affected me"

The COVID-19 pandemic and associated public health response measures affected several life dimensions of the *impacted group* during the first wave. Among the impacted participants, there was a subgroup for whom such impacts were positive, whilst for others, they were negative. Among the positive impacts experienced by some participants, there were those related to improvement or fewer episodes of mental health issues, such as anxiety and paranoia, related to the reduction of exposure to frequent interpersonal interactions due to the quarantines and social restrictions.

> It has actually helped a lot. Interestingly like I felt like with the quarantine, I didn't struggle too much with that [anxiety]. I should be able to manage social interaction and have my emotions not go so up and down, but I felt like my mental health, it improved because I wasn't always out with people, and having all those little thoughts running through my head all the time about what do they think or what are they saying, or all of those ideas that I get. The other thing is, it gave me more time to focus on my mental health. So, I took it as a time to kind of focus on different aspects that I wanted to work on so I finished the CBT therapy through Zoom. [A0002]

For one participant, the lockdown, stay at home orders, and the availability of virtual connections with health care services, allowed them to stay off full-time work and focus on controlling different aspects of their health, including performing physical health check-ups.

> I am at an age where they want you to go for all of these checks, and because of COVID, I've actually had the time to go with no loss of income because I'm on full pay when I'm not at work [paid time off], so all my monitoring is all up to date. During COVID, I have had a sleep study done, I've had a CAT scan, I've had a respiratory assessment and I've had a colonoscopy. I was supposed to go have a mammogram scheduled for tomorrow, but I go into work on Tuesdays. [A0013]

For other participants, the pandemic allowed them to re-think their life goals (e.g. return to formal education and training) and plan ways to achieve them. Also, it allowed strengthening or building further relationships with their families and opportunities to actively improve their life skills, such as cooking, sewing and gardening.

> I've had some more time with the kids [due to be off work]. So, I've had more time to spend with the kids and to build that relationship more. At the beginning[-COVID-19 pandemic], I was also doing a lot more cooking which was really great. So, learning how to cook more, I was baking bread; all that kind of stuff [A0002]

For the sub-group of participants who experienced negative impacts from the pandemic and associated response measures, such effects were more marked on their mental health and social dimensions. Participants described new-onset anxiety, and insomnia or an exacerbation of existing mental disorders, such as PTSD, depression, obsessive-compulsive disorder and anxiety. Additionally, some participants also experienced significant levels of fear, stress and paranoia related to the overall effect of the pandemic and the possibility of being exposed to or infected with the COVID-19 virus, even when following all sanitation and social distancing precautions. These issues limited even more their very life activities, such as using public transportation, accessing health care services or going shopping for food.

> I'm scared, and [PTSD-related symptoms] started again since the virus showed up for the first time. So, it's quite trying. I don't get a lot of sleep because I'm woken from nightmares, and you know, different things that have happened to me in my life. So, it's quite trying. [A0006]

Some negatively impacted participants experienced marked challenges in accessing appropriate and timely health care services during the pandemic, especially for non-COVID-19-related health issues (pre-existing chronic health conditions), pharmacological prescriptions, interventional or specialised services (e.g. surgery, eye care services, substance use support), diagnostic tests (e.g. ultrasounds) and complementary health (e.g. physiotherapy and aquatic therapy as part of chronic pain management). Besides the limitations imposed by the official pandemic response (e.g. limiting non-priority health care services and in-person appointments), the healthcare access limitations in this participant group, were due to difficulties in navigating the implemented virtual health system, lack of a smartphone device to properly book appointments, and changes in their principal caregivers.

> Doctors and prescriptions that needed to be refilled concerns. I mean, it is still really a hassle to get a doctor [to receive a prescription]. It is not as simple as picking up the phone anymore and making an appointment. You know, there's usually some waiting involved, so that's frustrating. [A0010]

Loneliness and lack of in-person connections with their relatives, friends, especially during the first months of the pandemic, were the main negative impacts identified on the social dimensions of some of the members of the negatively impacted sub-group. However, the phone-based support received from HF case managers helped to mitigate such loneliness and social disconnection for some participants

> He [case manager] called me and reassured me: don't worry, you won't be seeing me for a bit but I will give you phone support. You call me anytime you need and that was reassuring. That made me feel really good because in the beginning, it was like cold and lonely. You don't know, like I couldn't go visit my family in [name of community] and that was the thing. [A0008]

Regarding food security, none of the participants of the impacted group expressed hunger. However, some were at high risk of food insecurity, such as those who usually relied on food assistance from food banks, drop-in-centres and other community-based food services. Most food support services were shut down during the first months of the pandemic, food donations were limited and some participants refused to take food assistance to reduce their exposure to the virus. Only a few participants received food support, mainly from a limited number of food banks that continued operating or through HF programs. In contrast, others reduced the variety of foods that they consumed (e.g. frequent consumption of beans) due to the lack of access to affordable food products. Additionally, some participants experienced competing financial priorities, such as paying rent and other household expenses rather than food.

> Food banks are closed, so the programs aren't getting the donations of the food anymore. It has just been a lot rougher. No food access outside the AH program. And food prices have gone up. There are all kinds of stuff that has gone up. Things are not accessible. [A0006]

Regarding the effects on other life dimensions, such as leisure and financial welfare, there were some of the impacted participants whose leisure activities were confined to their household, mainly watched television, cared for sick relatives, and provided schooling support to their children. There were others that used the pandemic lockdown to participate in outdoor recreational activities, such as walking, fishing and biking. Few participants were enrolled in online spiritual and social networking groups at the time of the interview date.

> I go out, you know I like going fishing myself, right. I'm a fisherman so I, I spend a lot of time fishing, right. I love fishing, and so nothing like peace of mind, and that's my, that's my, hey, that's my thing. [A0003]

Similar to the non-impacted group, the majority of the participants in the impacted group were receiving ODSP or OW financial aid. They also received one-time pandemic aid of CAD$100 for a single person or CAD$200 for those with children or partners.

3.2 | COVID-19 safety measures and access to preventive information

All impacted and non-impacted participants adhered to COVID-19 safety measures and social distancing. Access to PPE such as masks and sanitation products was limited at the pandemic's start. However, participants were able to access PPE either through relatives and friends or by buying it when available and having money to do so. No participants tested positive for or had COVID-19 symptoms. Finally, all participants accessed reliable preventive COVID-19 information through mass media campaigns (e.g. TV, Radio), public health authority's websites or HF case managers. This was facilitated by having access to television/radio devices and phones with internet services.

> My worker always calls me and keeps me updated on any new happenings and stuff like that. He always keeps me up and gives me the heads up on what's new and what's going on, and so, and he always checks on me to make sure any, any new information[COVID-19-related preventive information] that he has, he would call me. [A0004]

4 | DISCUSSION

The present qualitative study explored the impacts of the COVID-19 pandemic and associated public health response measures on the health, social well-being and food security of adults with a history of chronic homelessness and mental illness who used HF services in Toronto (Canada), during the first wave of the pandemic.

Although all our participants had a history of severe mental disorders (major depression, PTSD, psychotic disorders, panic disorder and substance or alcohol disorders; Stergiopoulos et al., 2019), one large group of participants were the COVID-19 non-impacted group. This group seemed to have coped well with the restrictions in social interactions and isolation. For the remaining participants (impacted group), the COVID-19 pandemic, associated lockdowns and social restrictions, as well as the virtual shift in the health care system, had either negatively or positively affected their mental health and social well-being. For positively impacted participants, the low frequency of social interactions and having a safe and independent housing accommodations plus economic benefits helped to reduce the exacerbation of pre-existing mental disorders, such as anxiety and psychotic disorders. It also aided them to be focused on their life goals and hobbies, strengthening family ties, and successfully seeking help for existing physical health concerns. In the subgroup of participants who experienced negative impacts, we found that some experienced new-onset mental health symptoms (anxiety and paranoia), mainly related to fear of contracting the virus and the restrictions in socialising or using public spaces. Other participants suffered an exacerbation of pre-existing conditions, such as PTSD, obsessive-compulsive disorder and depression, and many struggled with loneliness and isolation.

These findings showed that the COVID-19 pandemic and associated response measures during the first wave in Canada had impacted the lives of people with a history of homelessness and mental disorders, even those receiving stable social and housing support, in various ways. This is in line with a Canadian study carried out on the general population, which showed that the first wave of the COVID-19 pandemic has differential mental health impacts depending on factors such as prior health status, disability, income, unmet basic needs, ethnicity, gender, resilience, coping and emotional responses, as well as due to structural inequalities and barriers to accessing support services, including health services for chronic diseases (Jenkins et al., 2021).

Despite the overwhelming evidence of the adverse effects of the COVID-19 pandemic on individuals' health and social well-being (de Sousa Júnior et al., 2021; Kunzler et al., 2021), some studies have documented that during the pandemic, some people were indeed focused more on improving their mental health and took it as an opportunity to rest/relax and strengthen relationships with family or relatives (Al Dhaheri et al., 2021). In addition, a longitudinal Dutch study found that in people with a high burden of mental health disorders (depression, anxiety, obsessive-compulsive disorders), the COVID-19 pandemic did not increase the severity of their symptoms (Pan et al., 2021).

Our findings suggest that it is likely that previous experiences of social exclusion or disconnection, loneliness, hardship, and trauma faced by people experiencing chronic homelessness and mental illness may have contributed to some individuals coping well and adapting to quarantine and lockdown measures, including having few social interactions during the pandemic. However, the reverse effect could be possible, where ongoing experiences of exclusion, deprivation, and social disconnection prior to the pandemic, were not dissimilar to those that resulted from the imposed lockdowns and social interaction restrictions during the pandemic.

For other people (as in our impacted group), such adverse and traumatic experiences led to negative consequences, being unable to protect their mental health during such a crisis or emergency. In this regard, authors such as Corpuz JC argues that some people can adapt and build resilience from adversity or crises, which may help them to overcome events such as the current pandemic (Corpuz, 2021). Also, studies carried out in the general public over the first few months of the pandemic have found that people with a high level of resilience were able to adapt better to the changes associated with the COVID-19 pandemic, and experienced fewer negative psychological impacts (Morales-Vives et al., 2020). However, other studies have shown that the COVID-19 pandemic can be a traumatic stressor that might cause or worsen the mental well-being of individuals (Bridgland et al., 2021; Rutherford et al., 2021). Furthermore, the pandemic has been associated with mental disorders, such as PTSD symptomatology, impaired psychosocial functioning, depression, anxiety and stress in the general population (Bridgland et al., 2021; Rutherford et al., 2021), similar to what was found among participants in the negatively impacted sub-group. Such effects could be due to the 'future trauma' underlying mechanism, which refers to the anticipation or imagination of future negative consequences or events linked to the current COVID-19 pandemic and surrounding information and response measures (Bridgland et al., 2021).

The diverse health and social impacts observed in our study may also be due to variation in our participants' social networks/connections and family relationships. Many participants in the non-impacted group were able to connect with relatives, friends or other social support sources (e.g. spiritual community) virtually or saw them respecting social distancing and using PPE. In contrast, many participants in the impacted group experienced loneliness and a lack of strong social networks. In addition, the initial lockdown triggered the closure of support services, community centres and other public spaces (libraries and shopping malls), which are frequent places used by our participants; this may have contributed to the exacerbation of pre-existing mental disorders and loneliness in some of our participants (Perri et al., 2020; Rolim Lima et al., 2020; Tsamakis et al., 2021). In line with this, an Italian study found that online social contacts mitigated the impact of isolation during the first strict COVID-19 lockdown (Pancani et al., 2021). An umbrella review of existing meta-analyses studies also found that social connections play an essential role in mitigating or exacerbating the negative impacts of COVID-19 and social response measures on health outcomes (Morina et al., 2021).

Our study also found that there were differences in health services accessibility. Some participants reported being able to access services for their physical and or mental health concerns, whilst others reported significant barriers to accessing health services and treatment, particularly for pre-existing chronic health disorders. Evidence has shown that the negative impacts of COVID-19 on the healthcare system affected its capacity to provide continuity of care and caused delays in access to health and treatment services in the general population (Alexander et al., 2021; Xiao et al., 2021). This occurred even in Canada, where the health system provides universal coverage and was rapidly shifted from in-person to virtual and phone-based care services as a repose to pandemic (Glazier et al., 2021). These disruptions may contribute to worsening the health and well-being of underserved people with complex and intersecting health and socioeconomic needs (Alexander et al., 2021; Glazier et al., 2021; Tsai & Wilson, 2020). Furthermore, populations experiencing homelessness and serious mental disorders (including substance use disorders) are overrepresented by ethno-racial minorities, 2SLGBTQ+ and migrants, who often face multidimensional inequities in non-pandemic times due to systemic or structural barriers (Alexander et al., 2021; Blumenthal et al., 2020; National Academies of Sciences, Engineering, 2017), such as socioeconomic and power exclusion, discrimination, stigma and racism (National Academies of Sciences, Engineering, 2017), which can amplify further the health access inequities experienced for such population groups during the COVID-19 pandemic.

Regarding access to food and other services, we found that some participants were at high risk of food insecurity and nutritional deficiency. The COVID-19 pandemic has contributed to widening unmet dietary needs and lack of food preferences of underserved populations due to a lack of financial capacity to meet competing needs (e.g. paying rent) and the closure of community food resources they frequently used (e.g. drop-in-meal programs, food banks and community-based food supply) (Mardones et al., 2020). In addition, it underlines the lack of appropriate food system capacity and a limited preparedness to respond to the food needs of low-income and underserved populations during the peaks of public health emergencies (Mardones et al., 2020; Niles et al., 2020).

Finally, both impacted and non-impacted participant groups were able to adhere to safety, sanitation and social distancing measures, and had good access to reliable preventive COVID-19 information via mass media, official public health sources and HF services. Some of the positive effects as well as non-observed effects discussed previously could directly relate to the vital role of stable and safe housing paired with robust social and health support (Benfer et al., 2021; Mehdipanah, 2020) that participants received. In fact, participants had been receiving long-term HF services, which included having a stable and safe house to live, access to continuous case management and multidisciplinary social and health supports (Hwang et al., 2012; Stergiopoulos et al., 2019). The use of services may have mitigated the potential negative impacts or exacerbation of the socioeconomic and health inequities that resulted from the pandemic responses in some of our participants.

Ensuring that socio-economically disadvantaged people have access to internet and phone services and updated and reliable COVID-19 related information also contribute to reducing their exposure risk and their role in spreading the SARS-CoV-2 virus (Cinelli et al., 2020; Fakultaet & Sciences, 2020; Tsao et al., 2021). Additionally, most of our participants were receiving government economic benefits and rent supplements through the HF program, which put them under less financial stress and allowed them to buy PPE and pay for phone or internet connections and reduced exposure to SARS-CoV-2 virus sources.

The present study has some limitations. Participants who completed an interview had access to the internet or phone services, and their physical and mental health status allowed their participation. Thus, these findings may not be representative of people experiencing inequitable access to technological devices and digital services, or in locations where such services may not be available. Also, the present study did not document impacts on access to acute health care services and other health indicators, such as mortality rates. Therefore, it is likely that other socially excluded population groups may have disproportionately suffered such effects. Interviews were carried out during the first wave of the COVID-19 pandemic; therefore, there is a possibility that the circumstances and support needs of participants changed over the successive pandemic waves. Furthermore, the present study was conducted in a high-income urban setting with universal and free health coverage (Canada). All participants were stably housed and received financial benefits and long-term HF support. Thus, the findings might not be generalizable to other geographical settings, people receiving social support but not under the HF framework, or those living in the shelter system or on streets, encampments or refugee settlements. Finally, despite identifying some of the potential contributors to the observed differential impacts of COVID-19 and associated control measures, further studies are required to identify and better understand the 'Why' of such impacts.

The present study has the following practice and policy implications. First, appropriate and timely access to social, health and housing services should be guaranteed to mitigate the negative impact of pandemic events on the health and social well-being of underserved and socio-economically excluded people, including those receiving supportive social services. Second, many people with experiences of chronic homelessness and serious mental disorders continue to live in poverty and depend on community-based support services to meet their basic needs, including access to food even after moving into stable housing. Thus, more efficient and equitable emergency response plans and strategies should address these groups' health, economic, food, housing, family and social needs during and beyond public health crises. Also, pandemic plans need to include strategies to strengthen the response capacity of existing community-based organisations serving underserved populations, including supporting people living on the streets, in encampments or the shelter system.

Lastly, it is crucial to enhance access to affordable, reliable and stable virtual communication tools, including telephone, computer and internet services for equity-seeking population groups to

increase their safety, health education and inclusion in health, social and economic responses to public health crises (Beaunoyer & Dup, 2020; Nguyen et al., 2021; Robinson et al., 2020).

5 | CONCLUSION

The COVID-19 pandemic and associated response measures had diverse impacts on the health, social well-being and food security of people with experiences of homelessness and mental disorders.

AUTHORS' CONTRIBUTIONS

Cilia Mejia-Lancheros conceptualised the study and was responsible for overseeing the study implementation and collection of the data alongside James Lachaud and George Da Silva. Cilia Mejia-Lancheros and Evie Gogosis were responsible for the data curation. Cilia Mejia-Lancheros and Samira Alfayumi-Zeadna carried out the coding and the first analysis and interpretation of the data, prepared the findings summary and associated pictograms, and co-wrote the first manuscript version. James Lachaud, Evie Gogosis, Patricia O'Campo and Naomi Thulien contributed to the validation of the coding framework and analysis of the data. They also contributed to the interpretation and discussion of the findings and critical revision and editing of the manuscript. George Da Silva, Stephen W. Hwang and Vicky Stergiopoulos made significant contributions to the interpretation of the findings and the associated implication from practice and policy. Stephen W. Hwang and Cilia Mejia-Lancheros are co-principal investigators of the Toronto AH/CS-Quali Study. James Lachaud, Vicky Stergioupoulos, Naomi Thulien and Patricia O'Campo are co-investigators of the Toronto AH/CS-Quali Study. All co-authors revised and approved the final manuscript version.

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CONFLICT OF INTEREST

The authors declare no competing interests.

DATA AVAILABILITY STATEMENT

The study dataset cannot be made publicly available due to the sensitive nature of the data and agreements and procedures governing using the collected dataset established by the study participants, sponsor and research institution. However, de-identified participant data used in the present study can be made available to investigators who complete the following steps: (1) present a study proposal that has received approval from an independent research committee or research ethics board; (2) provide a data request for review by the study principal investigators (PIs) and co-investigators; (3) following approval of the request, execute a data-sharing agreement between the investigators and the Study PIs. Study proposals and data access requests should be sent to Evie Gogosis (evie.gogosis@unityhealth.to), the research manager for the present study, and Dr. Stephen Hwang (stephen.hwang@unityhealth.to), co-principal investigator of the Toronto AH/CS-Quali Study.

ETHICS APPROVAL

The study received ethics approval from the Unity Health Toronto Research Ethics Board (REB) at St. Michael's Hospital, Toronto, Canada. All participants provided written and/or documented oral consent to participate in the present study, have their audio-recorded data transcribed and use their de-identified spoken words in published reports, manuscripts and public events. All participants received an honorarium of $40 CAD for participation in the study.

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REFERENCES

Al Dhaheri, A. S., Bataineh, M. F., Mohamad, M. N., Ajab, A., Al Marzouqi, A., Jarrar, A. H., Habib-Mourad, C., Jamous, D. O. A., Ali, H. I., Al Sabbah, H., Hasan, H., Stojanovska, L., Hashim, M., Elhameed, O. A. A., Obaid, R. R. S., ElFeky, S., Saleh, S. T., Osaili, T. M., & Ismail, L. C. (2021). Impact of COVID-19 on mental health and quality of life: Is there any effect? A crosssectional study of the MENA region. *PLoS One*, *16*, e0249107. https://doi.org/10.1371/journal.pone.0249107

Alexander, K., Pogorzelska-Maziarz, M., Gerolamo, A., Hassen, N., Kelly, E. L., & Rising, K. L. (2021). The impact of COVID-19 on healthcare delivery for people who use opioids: A scoping review. *Substance Abuse: Treatment, Prevention, and Policy*, *16*, 60. https://doi.org/10.1186/s13011-021-00395-6

Babando, J., Quesnel, D. A., Woodmass, K., Lomness, A., & Graham, J. R. (2022). Responding to pandemics and other disease outbreaks in homeless populations: A review of the literature and content analysis. *Health and Social Care in the Community*, *30*, 11–26. https://doi.org/10.1111/hsc.13380

Bambra, C., Riordan, R., Ford, J., & Matthews, F. (2020). The COVID-19 pandemic and health inequalities. *Journal of Epidemiology and Community Health*, *74*, 964–968. https://doi.org/10.1136/jech-2020-214401

Beaunoyer, E., & Dup, S. (2020). COVID-19 and digital inequalities: Reciprocal impacts and mitigation strategies. *Computers in Human Behavior*, *111*, 106424.

Benfer, E. A., Vlahov, D., Long, M. Y., Walker-Wells, E., Pottenger, J. L., Gonsalves, G., & Keene, D. E. (2021). Eviction, health inequity, and the spread of COVID-19: Housing policy as a primary pandemic

mitigation strategy. *Journal of Urban Health*, *98*, 1–12. https://doi.org/10.1007/s11524-021-00519-0

Bertram, F., Heinrich, F., Fröb, D., Wulff, B., Ondruschka, B., Püschel, K., König, H. H., & Hajek, A. (2021). Loneliness among homeless individuals during the first wave of the covid-19 pandemic. *International Journal of Environmental Research and Public Health*, *18*, 3035. https://doi.org/10.3390/ijerph18063035

Blumenthal, D., Fowler, E. J., Abrams, M., & Collins, S. R. (2020). Covid-19 — Implications for the health care system. *New England Journal of Medicine*, *383*(15), 1483–1488.

Bottan, N., Hoffmann, B., & Vera-Cossio, D. (2020). The unequal impact of the coronavirus pandemic: Evidence from seventeen developing countries. *PLoS One*, *15*(10), e0239797. https://doi.org/10.1371/journal.pone.0239797

Bridgland, V. M. E., Moeck, E. K., Green, D. M., Swain, T. L., Nayda, D. M., Matson, L. A., Hutchison, N. P., & Takarangi, M. K. T. (2021). Why the COVID-19 pandemic is a traumatic stressor. *PLoS One*, *16*(1), e0240146. https://doi.org/10.1371/journal.pone.0240146

Buchnea, A., & McKitterick, M.-J. (2020). *Responding to youth homelessness during COVID-19 and beyond perspectives from the youth-serving sector in Canada*. Canadian Observatory on Homelessness Press and A Way Home Canada.

Centers for Disease Control and Prevention. (2021). *Coronavirus disease 2019 (COVID-19)*. Centers for Disease Control and Prevention.

Chung, R. Y. N., Dong, D., & Li, M. M. (2020). Socioeconomic gradient in health and the covid-19 outbreak. *The BMJ*, *369*, m1329. https://doi.org/10.1136/bmj.m1329

Cinelli, M., Quattrociocchi, W., Galeazzi, A., Valensise, C. M., Brugnoli, E., Schmidt, A. L., Zola, P., Zollo, F., & Scala, A. (2020). The COVID-19 social media infodemic. *Scientific Reports*, *10*, 16598. https://doi.org/10.1038/s41598-020-73510-5

City of Toronto. (2021). *2021 street needs assessment results report*. City of Toronto. https://www.toronto.ca/city-government/data-research-maps/research-reports/housing-and-homelessness-research-and-reports/?accordion=street-needs-assessments

Corpuz, J. C. G. (2021). Adapting to the culture of "new normal": An emerging response to COVID-19. *Journal of Public Health*, *43*(2), e344–e345. https://doi.org/10.1093/pubmed/fdab057

Culhane, D., Treglia, D., Steif, K., Kuhn, R., & Byrne, T. (2020). *Estimated Emergency and Observational/Quarantine Capacity Need for the U.S. Homeless Population Related to COVID-19 Exposure by County; Projected Hospitalizations, Intensive Care Units, and Mortality*. https://doi.org/10.5840/leibniz20172713

de Sousa Júnior, G. M., Tavares, V. d. D. O., de Meiroz Grilo, M. L. P., Coelho, M. L. G., Lima-Araújo, G. L. d., Schuch, F. B., & Galvão-Coelho, N. L. (2021). Mental health in COVID-19 pandemic: A meta-review of prevalence meta-analyses. *Frontiers in Psychology*, *12*, 703838. https://doi.org/10.3389/fpsyg.2021.703838

Fakultaet, M., & Sciences, S. (2020). The importance of reliable social media information during the COVID-19 pandemic. *European Journal of Public Health*, *30*(Suppl 5), ckaa165.067.

Falvo, N. (2020). *The long-term impact of the COVID-19 recession on homelessness in Canada: What to expect, what to track, what to do*.

Fazel, S., Geddes, J. R., & Kushel, M. (2014). The health of homeless people in high-income countries: Descriptive epidemiology, health consequences, and clinical and policy recommendations. *The Lancet*, *384*(9953), 1529–1540. https://doi.org/10.1016/S0140-6736(14)61132-6

Fazel, S., Khosla, V., Doll, H., & Geddes, J. (2008). The prevalence of mental disorders among the homeless in Western countries: Systematic review and meta-regression analysis. *PLoS Medicine*, *5*(12), 1670–1681. https://doi.org/10.1371/journal.pmed.0050225

Finch, W. H., & Hernández Finch, M. E. (2020). Poverty and Covid-19: Rates of incidence and deaths in the United States during the first 10 weeks of the pandemic. *Frontiers in Sociology*, *5*, 47. https://doi.org/10.3389/fsoc.2020.00047

Fiorillo, A., Sampogna, G., Giallonardo, V., Del Vecchio, V., Luciano, M., Albert, U., Carmassi, C., Carrà, G., Cirulli, F., Dell'Osso, B., Nanni, M. G., Pompili, M., Sani, G., Tortorella, A., & Volpe, U. (2020). Effects of the lockdown on the mental health of the general population during the COVID-19 pandemic in Italy: Results from the COMET collaborative network. *European Psychiatry*, *63*(1), e87, 1–11. https://doi.org/10.1192/j.eurpsy.2020.89

Gaetz, S., Dej, E., Richter, T., & Redman, M. (2016). *The State of Homelessness in Canada 2016*.

Gillard, S., Dare, C., Hardy, J., Nyikavaranda, P., Rowan Olive, R., Shah, P., Birken, M., Foye, U., Ocloo, J., Pearce, E., Stefanidou, T., Pitman, A., Simpson, A., Johnson, S., & Lloyd-Evans, B. (2021). Experiences of living with mental health problems during the COVID-19 pandemic in the UK: A coproduced, participatory qualitative interview study. *Social Psychiatry and Psychiatric Epidemiology*, *56*, 1447–1457. https://doi.org/10.1007/s00127-021-02051-7

Glazier, R. H., Green, M. E., Wu, F. C., Frymire, E., Kopp, A., & Kiran, T. (2021). Shifts in office and virtual primary care during the early COVID-19 pandemic in Ontario, Canada. *CMAJ*, *193*, E200–E210. https://doi.org/10.1503/cmaj.202303

Ha, Y. P., McDonald, N., Hersh, S., Fenniri, S. R., Hillier, A., & Cannuscio, C. C. (2021). Using informational murals and handwashing stations to increase access to sanitation among people experiencing homelessness during the COVID-19 pandemic. *American Journal of Public Health*, *111*(1), 50–53. https://doi.org/10.2105/AJPH.2020.305961

Hwang, S. W. (2001). Homelessness and health. *Cmaj*, *164*(1), 229–233. https://doi.org/10.1503/cmaj.071294

Hwang, S. W., Stergiopoulos, V., O'Campo, P., & Gozdzik, A. (2012). Ending homelessness among people with mental illness: The at home/chez Soi randomized trial of a housing first intervention in Toronto. *BMC Public Health*, *12*(1), 787. https://doi.org/10.1186/1471-2458-12-787

Iwundu, C. N., Santa Maria, D., & Hernandez, D. C. (2021). Commentary: The invisible and forgotten. COVID-19 inequities among people experiencing homelessness. *Family & Community Health*, *44*(2), 108–109. https://doi.org/10.1097/fch.0000000000000287

Jakovljevic, M., Bjedov, S., Jaksic, N., & Jakovljevic, I. (2020). Covid-19 pandemia and public and global mental health from the perspective of global health security. *Psychiatria Danubina*, *32*(1), 6–14. https://doi.org/10.24869/psyd.2020.6

Jenkins, E. K., McAuliffe, C., Hirani, S., Richardson, C., Thomson, K. C., McGuinness, L., Morris, J., Kousoulis, A., & Gadermann, A. (2021). A portrait of the early and differential mental health impacts of the COVID-19 pandemic in Canada: Findings from the first wave of a nationally representative cross-sectional survey. *Preventive Medicine*, *145*, 106333. https://doi.org/10.1016/j.ypmed.2020.106333

Khazanchi, R., Evans, C. T., & Marcelin, J. R. (2020). Racism, not race, drives inequity across the COVID-19 continuum. *JAMA Network Open*, *3*(9), e2019933. https://doi.org/10.1001/jamanetworkopen.2020.19933

Kunzler, A. M., Röthke, N., Günthner, L., Stoffers-Winterling, J., Tüscher, O., Coenen, M., Rehfuess, E., Schwarzer, G., Binder, H., Schmucker, C., Meerpohl, J. J., & Lieb, K. (2021). Mental burden and its risk and protective factors during the early phase of the SARS-CoV-2 pandemic: Systematic review and meta-analyses. *Globalization and Health*, *17*(34), 1–29. https://doi.org/10.1186/s12992-021-00670-y

Lewer, D., Braithwaite, I., Bullock, M., Eyre, M. T., White, P. J., Aldridge, R. W., Story, A., & Hayward, A. C. (2020). COVID-19 among people experiencing homelessness in England: A modelling study. *The Lancet Respiratory Medicine*, *8*, 1181–1191. https://doi.org/10.1016/S2213-2600(20)30396-9

Mardones, F. O., Rich, K. M., Boden, L. A., Moreno-Switt, A. I., Caipo, M. L., Zimin-Veselkoff, N., Alateeqi, A. M., & Baltenweck, I. (2020). The COVID-19 pandemic and global food security. *Frontiers in Veterinary Science*, *7*, 578508. https://doi.org/10.3389/fvets.2020.578508

Martinelli, A., & Ruggeri, M. (2020). The impact of COVID-19 on patients of Italian mental health supported accommodation services. *Social Psychiatry and Psychiatric Epidemiology*, *55*, 1395–1396. https://doi.org/10.1007/s00127-020-01897-7

Mehdipanah, R. (2020). Housing as a determinant of COVID-19 inequities. *American Journal of Public Health*, *110*(9), 1369–1370. https://doi.org/10.2105/AJPH.2020.305845

Mejia-Lancheros, C., Lachaud, J., Nisenbaum, R., Wang, A., Stergiopoulos, V., Hwang, S. W., & O'Campo, P. (2020). Dental problems and chronic diseases in mentally ill homeless adults: A cross-sectional study. *BMC Public Health*, *20*(1), 419. https://doi.org/10.1186/s12889-020-08499-7

Millett, G. A., Jones, A. T., Benkeser, D., Baral, S., Mercer, L., Beyrer, C., Honermann, B., Lankiewicz, E., Mena, L., Crowley, J. S., Sherwood, J., & Sullivan, P. S. (2020). Assessing differential impacts of COVID-19 on black communities. *Annals of Epidemiology*, *47*, 37–44. https://doi.org/10.1016/j.annepidem.2020.05.003

Morales-Vives, F., Dueñas, J. M., Vigil-Colet, A., & Camarero-Figuerola, M. (2020). Psychological variables related to adaptation to the COVID-19 lockdown in Spain. *Frontiers in Psychology*, *11*, 565634. https://doi.org/10.3389/fpsyg.2020.565634

Morina, N., Kip, A., Hoppen, T. H., Priebe, S., & Meyer, T. (2021). Potential impact of physical distancing on physical and mental health: A rapid narrative umbrella review of meta-analyses on the link between social connection and health. *BMJ Open*, *11*, e042335. https://doi.org/10.1136/bmjopen-2020-042335

National Academies of Sciences, Engineering. (2017). *Communities in action: Pathways to health equity*. The National Academies Press. https://doi.org/10.17226/24624

Neergaard, M. A., Olesen, F., Andersen, R. S., & Sondergaard, J. (2009). Qualitative description-the poor cousin of health research? *BMC Medical Research Methodology*, *9*, 52. https://doi.org/10.1186/1471-2288-9-52

Nguyen, M. H., Hargittai, E., & Marler, W. (2021). Digital inequality in communication during a time of physical distancing: The case of COVID-19. *Computers in Human Behavior*, *120*, 106717. https://doi.org/10.1016/j.chb.2021.106717

Niles, M. T., Bertmann, F., Belarmino, E. H., Wentworth, T., Biehl, E., & Neff, R. (2020). The early food insecurity impacts of COVID-19. *Nutrients*, *12*, 2096. https://doi.org/10.1101/2020.05.09.20096412

Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). Thematic analysis: Striving to meet the trustworthiness criteria. *International Journal of Qualitative Methods*, *16*, 1–13. https://doi.org/10.1177/1609406917733847

Ontario Nonprofit Network. (2020). *Ontario nonprofits and the impact of COVID-19: A flash survey report*.

Pan, K. Y., Kok, A. A. L., Eikelenboom, M., Horsfall, M., Jörg, F., Luteijn, R. A., Rhebergen, D., Oppen, P. v., Giltay, E. J., & Penninx, B. W. J. H. (2021). The mental health impact of the COVID-19 pandemic on people with and without depressive, anxiety, or obsessive-compulsive disorders: A longitudinal study of three Dutch case-control cohorts. *The Lancet Psychiatry*, *8*(2), 121–129. https://doi.org/10.1016/S2215-0366(20)30491-0

Pancani, L., Marinucci, M., Aureli, N., & Riva, P. (2021). Forced social isolation and mental health: A study on 1,006 Italians under COVID-19 lockdown. *Frontiers in Psychology*, *12*, 663799. https://doi.org/10.3389/fpsyg.2021.663799

Perri, M., Dosani, N., & Hwang, S. W. (2020). COVID-19 and people experiencing homelessness: Challenges and mitigation strategies. *CMAJ*, *192*(26), E716–E719. https://doi.org/10.1503/cmaj.200834

Perry, B. L., Aronson, B., & Pescosolido, B. A. (2021). Pandemic precarity: COVID-19 is exposing and exacerbating inequalities in the American heartland. *Proceedings of the National Academy of Sciences of the United States of America*, *118*(8), 1–6. https://doi.org/10.1073/pnas.2020685118

Polisena, J., Ospina, M., Sanni, O., Matenchuk, B., Livergant, R., Amjad, S., Zoric, I., Haddad, N., Morrison, A., Wilson, K., Bogoch, I., & Welch, V. A. (2021). Public health measures to reduce the risk of SARS-CoV-2 transmission in Canada during the early days of the COVID-19 pandemic: A scoping review. *BMJ Open*, *11*, e046177. https://doi.org/10.1136/bmjopen-2020-046177

Richard, L., Booth, R., Rayner, J., Clemens, K. K., Forchuk, C., & Shariff, S. Z. (2021). Testing, infection and complication rates of COVID-19 among people with a recent history of homelessness in Ontario, Canada: A retrospective cohort study. *CMAJ Open*, *9*(1), E1–E9. https://doi.org/10.9778/cmajo.20200287

Roberts, K., Dowell, A., & Nie, J. B. (2019). Attempting rigour and replicability in thematic analysis of qualitative research data; a case study of codebook development. *BMC Medical Research Methodology*, *19*, 66. https://doi.org/10.1186/s12874-019-0707-y

Robinson, L., Schulz, J., Khilnani, A., Ono, H., Cotten, S. R., McClain, N., Levine, L., Chen, W., Huang, G., Casilli, A. A., Tubaro, P., Dodel, M., Quan-Haase, A., Ruiu, M. L., Ragnedda, M., Aikat, D., & Tolentino, N. (2020). Digital inequalities in time of pandemic: COVID-19 exposure risk profiles and new forms of vulnerability. *Peer-Reviwed Journal on Internet*, *25*(7). https://doi.org/10.5210/fm.v25i7.10845

Rolim Lima, N. N., de Souza, R. I., Gomes Feitosa, P. W., de Sousa Moreira, J. L., Lima da Silva, C. G., & Rolim Neto, M. L. (2020). People experiencing homelessness: Their potential exposure to COVID-19. *Psychiatry Research*, *288*(January), 112945.

Rutherford, B. R., Choi, C. J., Chrisanthopolous, M., Salzman, C., Zhu, C., Montes-Garcia, C., Liu, Y., Brown, P. J., Yehuda, R., Flory, J., Neria, Y., & Roose, S. P. (2021). The COVID-19 pandemic as a traumatic stressor: Mental health responses of older adults with chronic PTSD. *American Journal of Geriatric Psychiatry*, *29*(2), 105–114. https://doi.org/10.1016/j.jagp.2020.10.010

Stergiopoulos, V., Mejia-lancheros, C., Nisenbaum, R., Wang, R., Lachaud, J., Campo, P. O., Hwang, S. W., O'Campo, P., Hwang, S. W., Campo, P. O., & Hwang, S. W. (2019). Long-term effects of rent supplements and mental health support services on housing and health outcomes of homeless adults with mental illness: Extension study of the at home/chez Soi randomised controlled trial. *The Lancet Psychiatry*, *6*(11), 915–925. https://doi.org/10.1016/S2215-0366(19)30371-2

Tian, F., Li, H., Tian, S., Yang, J., Shao, J., & Tian, C. (2020). Psychological symptoms of ordinary Chinese citizens based on SCL-90 during the level I emergency response to COVID-19. *Psychiatry Research*, *288*, 112992. https://doi.org/10.1016/j.psychres.2020.112992

Tsai, J., & Wilson, M. (2020). COVID-19: A potential public health problem for homeless populations. *The Lancet Public Health*, *5*, e186–e187. https://doi.org/10.1016/S2468-2667(20)30053-0

Tsamakis, K., Tsiptsios, D., Ouranidis, A., Mueller, C., Schizas, D., Terniotis, C., Nikolakakis, N., Tyros, G., Kympouropoulos, S., Lazaris, A., Spandidos, D., Smyrnis, N., & Rizos, E. (2021). COVID-19 and its consequences on mental health (review). *Experimental and Therapeutic Medicine*, *21*(244), 1–7. https://doi.org/10.3892/etm.2021.9675

Tsao, S. F., Chen, H., Tisseverasinghe, T., Yang, Y., Li, L., & Butt, Z. A. (2021). What social media told us in the time of COVID-19: A scoping review. *The Lancet Digital Health*, *3*, e175–e194. https://doi.org/10.1016/S2589-7500(20)30315-0

Tucker, J. S., D'Amico, E. J., Pedersen, E. R., Garvey, R., Rodriguez, A., & Klein, D. J. (2020). Behavioral health and service usage during the COVID-19 pandemic among emerging adults currently or recently experiencing homelessness. *Journal of Adolescent Health*, *67*, 603–605. https://doi.org/10.1016/j.jadohealth.2020.07.013

Volkow, N. D. (2020). Collision of the COVID-19 and addiction epidemics. *Annals of Internal Medicine*, *2019*, 2019–2021. https://doi.org/10.7326/M20-1212

Xiao, H., Dai, X., Wagenaar, B. H., Liu, F., Augusto, O., Guo, Y., & Unger, J. M. (2021). The impact of the COVID-19 pandemic on health services utilization in China: Time-series analyses for 2016–2020. *The Lancet Regional Health - Western Pacific*, *9*, 100122. https://doi.org/10.1016/j.lanwpc.2021.100122

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